

Amendments to the Claims

Claim 1 (Previously presented): A method of transmitting data using pulse modulation, the method comprising:
receiving bits of data from a memory unit;
transforming a plurality of the bits of data into an ultra wideband pulse, the ultra wideband pulse
having a pulse duration selected from a set of ten predetermined pulse durations, one of
which is corresponding to the plurality of bits of data; and
transmitting the ultra wideband pulse over a guided medium to a receiver without using a carrier
signal to transmit the ultra wideband pulse;
wherein each of the pulse durations within the set of ten predetermined pulse durations
corresponds to one of integers 0 through 9.

Claim 2 (Cancelled).

Claim 3 (Original): The method of claim 1 wherein the data is in the form of universal character encoding.

Claim 4 (Previously presented): The method of claim 1 further comprising:
receiving the ultra wideband pulse from the guided medium at the receiver; and
transforming the ultra wideband pulse into the plurality of bits of data corresponding to the
durations of the ultra wideband pulse.

Claims 5-20 (Cancelled).

Claim 21 (Previously presented): A method of transmitting data, comprising:
receiving at least two digital bits of data from a memory unit;
transforming the at least two digital bits of data into an ultra wideband pulse, the ultra wideband
pulse having a pulse duration selected from a set of at least ten different predetermined
pulse durations, one of which corresponds to the bits of data;

transmitting the ultra wideband pulse.

Claim 22 (Previously presented): The method of claim 21 wherein the transmission pulse is a pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claims 23-37 (Cancelled).

Claim 38 (Previously presented): A method of transmitting data with ultra wideband pulses, the method comprising:

receiving bits of data from a memory unit;

transforming a plurality of the bits of data into a single ultra wideband pulse, the single ultra wideband pulse having a pulse duration selected from a set of ten or more predetermined pulse durations, one of which is corresponding to the bits of data; and

transmitting the ultra wideband pulse over a transmission medium without using a carrier signal to transmit the ultra wideband pulse.

Claims 39-44 (Cancelled).

Claim 45 (Previously presented): The method of claim 38 wherein the data is in the form of universal character encoding.

Claim 46 (Previously presented): The method of claim 38 further comprising:

receiving the single ultra wideband pulse from the transmission medium; and

transforming the single ultra wideband pulse into a plurality of bits of data corresponding to the specific characteristics of the ultra wideband pulse.

Claim 47 (Previously presented): A method of transmitting data with electronic pulses, the method comprising:

receiving bits of data from a memory unit;

transforming a plurality of the bits of data into a monocycle ultra wideband pulse, the single pulse having a pulse position selected from a set of ten or more predetermined pulse positions, one of which is corresponding to the bits of data; and
transmitting the ultra wideband pulse over a transmission medium.

Claim 48 (Cancelled).

Claim 49 (Previously presented): The method of claim 47 wherein the data is in the form of universal character encoding and wherein the plurality of bits represent a digit associated with a universal character.

Claim 50 (Previously presented): The method of claim 47 further comprising:
receiving the ultra wideband pulse from the transmission medium; and
transforming the ultra wideband pulse into a plurality of bits of data corresponding to the position of the transmission pulse.

Claims 51-57 (Cancelled).

Claim 58 (Previously presented): A method of transmitting data, the method comprising:
representing a symbol comprising at least two bits of data by varying a pulse duration of a single time modulated ultrawideband radio-frequency pulse wherein the pulse duration is selected to be of one of a set of at least ten pulse durations based on the value of the at least two bits of data;
transmitting the time modulated ultrawideband pulse over a guided medium from a transmitter to a receiver.

Claims 59-61 (Cancelled).

Claim 62 (Previously presented): A method of transmitting data, comprising:
representing a symbol encoding a plurality of bits of data using a pulse characteristic of a single
time modulated ultra wideband radio-frequency pulse;
transmitting the single time modulated ultra wideband radio-frequency pulse over a guided
medium from a transmitter to a receiver;
wherein the step of representing comprises encoding the plurality of bits into a base 10
representation, such that the single time modulated ultra wideband pulse corresponds to a
digit between 0 and 9.

Claim 63 (Previously presented): The method of claim 62 wherein guided medium is an
electrically conductive guided medium.

Claim 64 (Previously presented): The method of claim 62 wherein the pulse characteristic is
a pulse duration.

Claim 65-66 (Cancelled).

Claim 67 (New): A method of transmitting data, comprising:
representing a character with a numeric base-10 character code;
transforming each digit of the numeric base-10 character code into an ultra wideband pulse, the
ultra wideband pulse having a pulse duration selected from a set of ten predetermined
pulse durations, one of which is corresponding to the digit; and
transmitting the ultra wideband pulse over a guided medium to a receiver without using a carrier
signal to transmit the ultra wideband pulse; and
wherein each of the pulse durations within the set of ten predetermined pulse durations
corresponds to one of integers 0 through 9.